



Air and Waste Matters

DNREC Division of Air and Waste Management



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Volume 1, Issue 11

December 2008

Highlights in this edition include:

**Teamwork Re-
stores Brown-
field Site** 2
Continued...

**New Daycare
at Former
Dover Ice
Plant Brown-
field Site** 3

**Community
Air Toxics
Study in Wil-
mington** 4

**\$50,000 in
Recycling
Assistance
Grant Awards** 5

**Special Duties
for DNREC's
Emergency
Response
Team** 6

**Cleaning Up
Scrap Tire
Piles/Officer's
Beat** 7

**More
Information
on the
Division** 8

Teamwork Restores Brownfield Site — Fox Point State Park

People passing Fox Point State Park by boat on the Delaware River might notice three flags snapping in the wind: our country's familiar stars and stripes, Delaware's colonial blue, and one with a "fox" illustration. Few can appreciate, however, the multiple meanings of the flags marking a spot where new land was created; where an environmental mistake was recognized and amended; and where neighborhood activism led to informed governmental action.

The flags are planted on new land created in the late 20th century from filling in the flowing river to create land for potential development. Starting in the 1950s, the Pennsylvania Railroad used foundry waste — including iron and steel slag and large castings — to create fill along the bank of the Delaware River. Later, in the 1970s, the addition of municipal sludge produced a barren flat area with invasive species.

The fox flag reflects the activism of S. Marston Fox, who lived in the area, and in 1958 started a personal campaign to stop the filling of the river until his death in 1982. It was Fox's vision of a "window on the river," fueled

later by active community leaders in the Fox Point Civic Association and legislators, that led to the extensive environmental work now completed decades later.

The Delaware flag reflects the multiple state agencies that came together to make S. Marston Fox's vision a reality. DNREC's Division of Parks and Recreation took over the property in 1990. The filling and disposal activities on the land resulted in approximately 150 acres that were contaminated with heavy metals and some organic pollutants. DNREC's Division of Air and Waste Management-Site Investigation Remediation Branch deployed expert engineers and scientists to perform detailed environmental investigations

(Continued on page 2)



A Window on the Delaware River at Fox Point State Park — Native trees now grow where the river once flowed, and until recently was a barren field full of foundry waste and municipal sludge.

Teamwork Restores Brownfield Site *Continued...*

and develop an effective long-term remediation plan for the site. The goal was to convert this waste land into a park asset for citizens and make it a nurturing riparian part of the living river for a safe and environmentally-sustainable “window on the river.”

Meeting this goal was a challenge involving installing culverts for drainage channels and fencing along the river bank, and capping the site with clean soil fill. This last element, clean fill, was the biggest challenge. Hauling enough clean soil to cover this many acres to a depth of several feet would have normally cost more money than DNREC had available. This is where teamwork proved critical.

DNREC's site managers were able to obtain clean fill from a nearby DelDOT project. DelDOT was creating a 520-acre wetland habitat as part of the flood control effort at Glenville near Stanton. Serendipitously, this project required removal of thousands of truckloads of clean fill, which were then safely trucked – often 500 truckloads per day – to Fox Point State Park for the required cap as part of the site remediation. The clean fill saved millions of state tax dollars on the project.

As a result of the cooperation among state agencies – DNREC's Parks and Recreation, and Air and Waste Management divisions, along with DelDOT colleagues – the final phase of Fox Point State Park is scheduled to open by spring 2009.

This is where the tallest flag, our nation's stars and stripes, is represented. Fox Point State Park is a story of people from diverse backgrounds coming together and fixing a problem, often in response to regular citizens and their repre-

sentatives demanding that government do its job to protect the natural environment and serve the people. Hard-wired into America is a Constitutional ability to reinvent ourselves, as we have done in a relatively small way at Fox Point State Park.

Sailors plying the river – many from other countries – may see the flags flying at Fox Point Park and never see a “window on the river,” but we know they are looking at a “window on America,” where we toil mightily to make things better for the next generation. We modestly hope that S. Marston Fox would be pleased with these efforts to fulfill his vision, and fly these flags on his “window on the river.”

In recognition of the teamwork that made this park restoration possible, Governor Ruth Ann Minner awarded her Team Excellence Award to DNREC and DelDOT staff in November 2008.

*Article by J. Cargill, SIRB and
J. Werner, Director, DAWM
Photos by J. Cargill*



The newly constructed retaining wall used to contain the thousands of truckloads of fill for Fox Point Park-Phase II.

New Daycare at Former Dover Ice Plant Brownfield Site

What was once the former Dover Ice Plant and then a vacant lot is now a safe and happy place to be for young children. The brownfield site is located at 645 West North Street in the City of Dover. The property was used for commercial and industrial purposes since the early 1900s before purchase by J. Fran Dell Inc. in 1998. J. Fran Dell Inc. entered into the Site Investigation and Restoration Branch's Voluntary Cleanup Program (VCP) to perform a Remedial Investigation and identify the potential risks posed to public health, welfare, and the environment at the site.

The investigation included both the soil and groundwater. Based on the results, it was determined that the groundwater beneath the site and in the vicinity did not pose a risk to human health and the environment. The soil, however, was a different story.

Several contaminants were found in the soil. In order to prevent human exposure to the soil, an impervious cap was installed following removal of contaminated soil. In addition, a deed restriction prohibiting any land-disturbing activities without DNREC approval, and an Operation

and Maintenance (O&M) Plan was established. The O&M Plan calls for regular inspection to ensure the integrity of the cap.

J. Fran Dell Inc.'s initial plans for a charter school at the site fell through early on. However, a new owner had the property certified as a Brownfield site in 2005. Shortly thereafter, Dover Station LLC and KIDZ INK entered into a partnership that allowed for the development of an Early Childcare and Education facility on the site. The resulting new building was completed in November 2008.

Article and Photo by R. Newsome, SIRB



The new "KIDZ INK" daycare facility in Dover.

Developing Brownfields in Delaware

Nearly every community in the State of Delaware is affected by brownfields. Brownfields are defined as "abandoned, idled, or underutilized industrial and commercial facilities where expansion or redevelopment is complicated by the real or perceived threat of environmental contamination." Contaminated and abandoned properties exist in cities, small towns, suburbs and the countryside. An old gas station, dry cleaners, or factory can be a brownfield site. Left idle, brownfields pose environmental, legal and financial burdens on a community and its tax payers. However, after cleanup and redevelopment, these sites can once again become the basis for economic stability, growth, jobs and community pride.

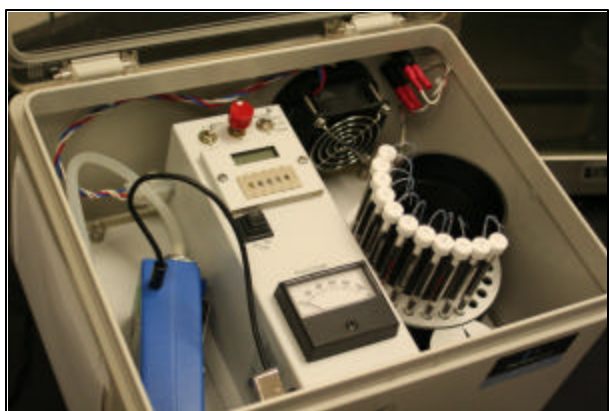
Brownfields are not necessarily hazardous facilities or sites - they may simply be places that are minimally contaminated and not utilized to their full potential as a result. Often the fear of contamination, even when none exists, can cause delays, without the confidence an investigation can provide. Brownfields redevelopment has increased significantly and funding for investigation and remediation is available. DNREC's Site Investigation and Restoration Branch (SIRB) is responsible for managing the Brownfields Development Program, the Voluntary Cleanup Program, and the Federal and State Superfund programs. For additional information on brownfields, please feel free to call Jim Poling, Brownfields Planner, at (302) 395-2600 or visit:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

Community Air Toxics Study in Wilmington

The Air Surveillance Branch of the Division of Air and Waste Management has started a new project, the Community Air Toxics Study (CATS), in the City of Wilmington. CATS is a community-level study focusing on a 5x5 km area around the existing Wilmington air monitoring site on Martin Luther King Blvd. The CATS study will emphasize outdoor air sampling and analysis of select volatile organic compounds (VOCs). The Wilmington area, with its proximity to major roadways, is ideal for the study because cars and trucks are known contributors of VOCs in outdoor air.

Six fixed monitoring sites were established to perform the study. Five sites are located within the City, and the sixth site is located outside the City at Lums Pond State Park. The sixth site is a control site to indicate background VOC levels. Sites were chosen based on population, elevated VOC concentrations (from previous studies), and proximity to sensitive receptors, such as schools and hospitals.



Portable Sorbent Tube Sampler

An important feature of this study is the use of portable sorbent tube samplers. Twelve glass tubes packed with sorbent material are placed in each sampler, and over a 24-hour period, a vacuum is pulled through each tube for two hours. While much of the data available today is based on one sample being collected over 24 hours and collected over a large geographi-



Existing Wilmington air monitoring site on MLK Blvd.

cal area, the CATS study will narrow the data set, thereby allowing the identification of VOC concentration variations throughout a given day and in a very small geographical area. This will serve as a valuable tool for evaluating VOC trends, air quality modeling performance, and provide supplemental data to better understand exposure regarding community health risks.

The CATS study uses state-of-the-art monitoring and analytical programs, focusing on the following five objectives:

1. Perform fast and accurate outdoor air measurements of VOCs.
2. Investigate outdoor VOC levels at different areas and different times in a community.
3. Better predict VOC levels in outdoor air.
4. Investigate correlation between outdoor VOC levels and emissions from reformulated gasoline (RFG) usage in cars.
5. Work with Delaware's Department of Health and Social Services (DHSS) to understand the meaning of outdoor VOC levels collected in the community.

Information gained from the completion of the study will be shared with the public through the web and at community events and displays, as well as involvement with community action groups. For more information on air quality monitoring stations in Delaware, please visit:

http://www.dnrec.state.de.us/air/aqm_page/airmont/air.asp.

Article and Photos by J. Winterling, AQM

\$50,000 in Recycling Assistance Grant Awards

DNREC and the Governor's Recycling Public Advisory Council announced a total of 50,000 awarded in Recycling Assistance Grants for Fiscal Year 2009 to fund projects that develop or expand innovative waste reduction, reuse or recycling activities. Funding the grant recipients was approved in Sept. 2008 and includes: six schools; three non-profit organizations, including a museum, little league committee and a homeowners association; Delaware Technical and Community College; and the University of Delaware.



The Children's Montessori School receives recycling award check.

Children's House Montessori School received the largest grant of \$11,732.85 to establish a composting program, produce a DVD on waste reduction, and establish outreach and education at their school in Wilmington. In addition, five other schools, Sussex Technical High School near Georgetown, Caravel Academy near Bear, North Georgetown Elementary School, Our Lady of Fatima School in Wilmington, and Wilmington Montessori School, received grants for recycling programs and education. The total award to schools was \$31,788.

"We received 19 proposals requesting \$227,095 for projects that include recycling, waste diversion, composting, and program education," said Director of Division of Air and Waste Management James D. Werner. "All

the proposals were worthy of funding, but with \$50,000 in available funds, only 11 proposals were awarded grants. Investing in recycling pays dividends by reducing wasted resources, but unfortunately we do not have a dedicated or sizable funding source."

Brock J. Vinton II, chairman of the Recycling Public Advisory Council said, "It was inspiring to review the grant applications and learn of the creative and dedicated efforts being made to reduce our waste stream and improve recycling across the state. All of the applicants should be commended for their initiative, including those applicants whose projects we could not fund, as all Delawareans are the beneficiaries of their efforts."



Director Werner presents award to Sussex Tech.

The Recycling Assistance Grant Program is a competitive, matching grant program that requires recipients to provide at least 25% of the total project cost in either cash or in-kind services. The program aims to reduce the amount of municipal solid waste generated and disposed of in Delaware landfills and contribute towards achieving the state's goal of recycling 51% of this waste. The Delaware General Assembly authorizes funding for the project. For more information, visit: www.awm.delaware.gov/Pages/Recycling.aspx.

*Article and Photos by W. Miller, SHWMB;
DNREC Press Release 11/13/08*

Special Duties for DNREC's Emergency Response Team

Did you know that DNREC's Emergency Response Team (ERT) is routinely called upon to perform special protective duties including this year's post-election "Return Day" ceremony in Georgetown? ERT members Jamie Bethard, Matt Higgins, Mike Cook, Mari Grehofsky, Matt Chamberlain, Casey Fountain, David Moyer, Daniel Wood, and Terrance Knight did an outstanding job providing hazardous materials monitoring and response capability at the Return Day special duty on November 6.

As part of the special duty, the ERT participated in several pre-event planning and preparation meetings in the weeks leading up to the Return Day event, developing hazardous materials and weapons of mass destruction monitoring, decontamination, plume modeling and response plans for the event. On the day before, and on Return Day, the ERT and the Delaware State Police-Explosive Ordnance Disposal (DSP-EOD) conducted surveys of the Georgetown circle and the parade route.

For the duration of the event, the ERT, DSP-EOD and the Delaware National Guard, 31st Civilian Support Team, were on site as a Joint Hazard Assessment Team (JHAT) protecting elected officials and the public attending the event. Four decontamination (DECON) task forces were established as part of the JHAT. The DECON task forces were made up of New Castle County Decontamination Team, from Elsmere, Cranston Heights and Five Points Fire Companies, Little Creek Fire Company, Kent County EMS paramedics, Sussex County EMS paramedics and Millsboro Fire Company.

In addition, Jamie Bethard of the Division's Emergency Prevention and Response Branch represented DNREC ERT in the Incident Command, developing the Joint Hazard Assessment Team (JHAT) response plan and coordinating all the teams

within the JHAT.

DNREC's ERT also participated in other similar JHAT assignments related to this year's elections including last February 3 for then Presidential-candidate Barack Obama's campaign stop in Wilmington.

Also, DNREC's Emergency Response Team, along with the Delaware State Police, Explosive Ordnance Disposal Unit (DSP-EOD) conducted a pre-event hazardous materials and weapons of mass destruction survey of the Legislative Mall, Legislative Hall and the Tattall Building for the Delaware National Guard 265th Signal Battalion send-off ceremony to Iraq on October 3. The battalion included then-Senator Joe Biden's son, Attorney General Beau Biden with Senator Biden in attendance.

After the sweeps were completed, DNREC's ERT and DSP-EOD were on site for the duration of the ceremony as a joint hazard assessment team (JHAT) keeping Delaware's troops and public servants safe.

Article by E. Malenfant, EPRB



The crowds cheer Vice President-elect Joe Biden at the Return Day 2008 ceremony.

Cleaning Up Scrap Tire Piles

Another patch of Delaware is cleaner and an illegal dumper has pled guilty in court, thanks to the work of DNREC's Environmental Crimes Unit. As a result of a citizen witness report (via DNREC's Emergency Reporting #: 800-662-8802), Environmental Protection Officer Cpl. Matthew Chamberlain was able to conduct a successful investigation and bring to justice the dumper responsible for a pile of scrap tires.

Garasches Lane in Wilmington may seem like a forgotten back road to some people, but to DNREC staff, it is part of Delaware's precious environment. After Cpl. Chamberlain's investigation, a warrant was issued for the suspect, resulting in the suspect appearing before the judge in Justice of the Peace Court where he pled guilty to the charge of dumping. The tires were cleaned up by the City of Wilmington.

Over the years, illegal dumping of scrap tires has resulted in an accumulated backlog of more than two million tires in Delaware. To pay for the clean up of these scrap tire dumps, the legis-



Prohibited scrap tire dumping in Wilmington.

lature in 2006 enacted a used tire fee of \$2 per tire to fund a new program. The program has already cleaned up several of the largest scrap tire dumps. When illegal dumping goes unreported, dumpers think they can operate with impunity. The Division's Environmental Crimes Unit will continue to be vigilant and enforce the law.

Article by M. Cook, ECU and J. Werner, DAWM

New Enforcement Officer Brings 20 Years of Extensive Experience



DNREC Secretary John A. Hughes swears in Environmental Protection Officer William Sheridan while Chief McDaniel witnesses the ceremony.

Please join us in welcoming William Sheridan to the Division's Environmental Crimes Unit. Officer Sheridan started at DNREC on November 3, 2008 as an Enforcement Trainee.

However, Officer Sheridan is no novice; rather, he is a highly experienced officer, formerly with the New Castle County Police Department.

Officer Sheridan will help strengthen enforcement for the Divisions of Air and Waste Management, Water Resources and Soil & Water Conservation, working with the Environmental Crimes Unit and on DNREC's Emergency Response Team.

**DELAWARE
DEPARTMENT OF
NATURAL
RESOURCES AND
ENVIRONMENTAL
CONTROL**

Secretary John A. Hughes
Deputy Sec. David Small

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We're on the web!
www.awm.delaware.gov

Visit the Site

**Investigation and
Restoration Branch
Brownfields Website**

at:

[http://
www.dnrec.state.de.us/
dnrec2000/Divisions/
AVM/sirb/
brownfield.asp](http://www.dnrec.state.de.us/dnrec2000/Divisions/AVM/sirb/brownfield.asp)

**for more Brownfields
information.**



The Division of Air and Waste Management oversees the handling, transferring and storing of solid and hazardous materials by regulating, monitoring, inspecting, enforcing and responding to emergencies. The Division also implements the state's air monitoring, permitting and compliance programs. The Division's responsibilities include administering air and waste programs including:

- Delaware's Air Quality Section — air monitoring and regulating air emissions.
- Tank Management Branch — maintenance and installation of underground and above ground storage tanks & overseeing cleanup of tanks which may leak.
- Emergency Prevention and Response Branch — preventing industrial accidents, assuring emergency planning and community right-to-know, and responding to environmental emergencies.
- Environmental Crimes Unit — the Enforcement Officers enforce the state's air, waste and water pollution laws, and participate on DNREC's Environmental Response Team by responding to environmental emergencies.
- Site Investigation and Restoration Branch — remediation of sites contaminated by hazardous substances (Superfund/Brownfields/Voluntary Cleanup Program).
- Solid and Hazardous Waste Management Branch — reuse, recycling, transport and disposal of solid and hazardous waste.

EASY REFERENCE PHONE NUMBERS

24-Hour Report and Spill Notification Line - 1-800-662-8802
Aboveground Storage Tanks - 302-395-2500
Air Quality - Dover Office - 302-739-9402
- New Castle Office - 302-323-4542
Asbestos - New Castle - 302-323-4542
- Kent & Sussex - 302-739-9402
Boiler Safety - 302-672-7653
Brownfields - 302-395-2600
Emergency Prevention and Response - 302-739-9404
Environmental Crimes Unit - 302-739-9401 or 1-800-662-8802
Hazardous Waste - 302-739-9403
Medical Waste - 302-739-9403
Open Burning - 302-739-9402
Outreach Ombudsman - 302-395-2515
Recycling - 302-739-9403
Site Investigation & Restoration Branch (Superfund/Brownfields) - 302-395-2600
Small Business Ombudsman - 302-739-9909
Solid Waste - 302-739-9403
Underground Storage Tanks - 302-395-2500

DID YOU KNOW?

The Division of Boiler Safety has moved from the Public Safety Building to a new location at the Blue Hen Mall in Dover. The Division may be reached at 302-672-7653. The address at the new location is:

**Blue Hen Corporate Center
655S. Bay Road Suite 5N
Dover DE 19901**

SLC D610A